Workshop on

Modernization Through Spares

28-29 May 1997

Design Criteria Working Group
Out-Brief

Methods to Achieve MTS

- **Use performance specifications**
  - **flexible interface**
  - **reflect customer's thresholds and goals**
- **Design for modularity**
- **Functional/Physical/Performance based partition**
- **Use standard interfaces**
  - **commercially supported/widely accepted**
  - **manage by interface profile**
  - **open systems architecture**
- **Allow contractor to control configuration below "atomic level"**

Barriers to Achieving MTS

- **Rigidity of legacy designs**
- **Lack of experience/training in preparing allocated performance specifications**
- **Culture**
  - **Inertia of infra structure**
  - **Desire for optimum performance**
  - **Conservative design approaches**
  - **Acceptance of third party testing**
  - **Ownership of detailed design**
  - **Attraction of new systems vs improving spares**
  - **Lack of incentive for MTS**

Examples

- **IEW Common Sensor**
  - **based design on commercial standards**
  - **VME/Unix/Ethernet/SQL**
- **AV8B Harrier**
  - **Using power PC processor (in development)**
- **UGV**
  - **COTS electronics**
- **New Training Helicopter**
  - **Pure commercial**
- **OH58D Engine**
  - **commercial**

Recommendations

- **Use a modular open systems approach**
- **Additional training in allocating performance to spares**
- **Template to select MTS candidates**
- **Release design control below the “atomic” level**
- **Leadership/education to overcome cultural inertia**